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ABSTRACT

This instructional unit was developed for use with a live interactive program that was delivered via satellite in October 1993, but it can also be used separately or incorporated into other teaching materials. The unit provides basic information on savings, investing, and buying a car. The following topics are covered in the guide's five sections: spending and saving, types of banks and accounts (types of institutions and accounts, factors and fees, and deposit insurance); other savings options (other investment options and factors to consider); the time value of money; and buying a car (comparing alternative methods of transportation). Each section contains background information and one or more learning activities. Also included are a glossary; an annotated list of 17 resources (publications, teaching guides, videos and filmstrips, and computer resources); and a list of 12 sources of additional information on savings, investing, and buying a car. (MN)

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ED 372 226

Instructional Unit

Enter The Savings Zone

ELECTRONIC FIELD TRIP

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Electronic Field Trip

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For you information

The Savings Zone

Orientation (pretaped) — **October 15, 1993**
1-1:30 p.m. (EDT)

Live Interactive Program — **October 22, 1993**
1-2:00 p.m. (EDT)

Technical Information

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Introduction

The Savings Zone Instructional Unit is a component of the electronic field trip. Through the information contained in this unit, teachers and students can prepare for the Orientation (pretaped) on October 15 and the Live Interactive Program on October 22. The unit provides basic information on savings, investing, and buying a car. It can be incorporated into other teaching materials or can be used separately. The activities, as well as the background material, can be photocopied.

This instructional unit was adapted, in part, from the *Consumer Approach to Investing* teaching guide developed by the National Institute for Consumer Education with funds provided by the National Futures Association.

Spending and Saving

Do you know how much money you spend each week? How much do you think teenagers as a group spend nationwide? Do you consider yourself a spender, or do you actually prefer to save some money for later use?

In the mid 1980s, a typical American teenager spent several thousand dollars each year--mainly on clothes, cars, food, and entertainment. These exercises added up to nearly $80 billion annually nationwide, according to marketers whose jobs depend on selling their products to teenagers.

Each of us must choose between "spending it all" and saving some money for later use. In essence, saving is deferred spending. It is a way to make money earn money (interest) while you accumulate funds for a future goal. Saving, simply put, helps you improve your future standard of living. Saving can give you a sense of power and a degree of independence. It can be gratifying, especially when you achieve a financial goal that would have been otherwise impossible.

Could you maintain your present lifestyle if you saved 10 percent of the money you now spend, that is, if you reduced your current spending by 10 percent? Most people who try can reduce spending without feeling deprived. And they like the feeling of power that comes from saving and managing money wisely. Ben Franklin was right. "A penny saved is a penny earned." He could have added that a penny saved, and invested wisely, will set you on the road to financial independence. But Ben left that for each of us to discover for ourselves.

The decision to save puts you in control of your money. The process can be creative because it helps you to think about your personal goals. When you save, you choose not to spend money for unnecessary things. Once you break the habit of spending it

Spending and Saving

all and you regularly set aside some money for future goals, you will discover that saving can actually be easy and fun. Before you enter "The Savings Zone," you need to know the types of financial institutions and savings accounts available to you so that you can decide where to save your money.

Activities

1. Ask how many students already have a savings account; how long they have been saving; why they opened the account; and whether they find it easy or difficult to save money.

   For some students and their families, just making ends meet may be all they can do. Still, students should consider the importance of saving small amounts, even in these households, so when financial conditions improve they will be prepared.

2. Ask how many of your students have a job, receive an allowance or plan to seek part-time employment. Discuss employment options available to students, such as co-op opportunities, that can provide some money but that do not jeopardize their school responsibilities.

3. Direct students to keep track of their spending for a week, recording the items they purchase and the amount of money they spend, using the Worksheet (page 7). With this information, have students categorize their purchases as "needs" or "wants." Ask students to use the information about their needs and wants to decide what they really need and what they merely want.

4. Using the Weekly Income and Expenses Records (page 7), students can track their savings and project how long they must save to buy their wants. At this juncture, you could engage them in a dialogue to see whether their perspective on needs versus wants has changed.

5. Have students suggest ways they might reduce spending. Examples include renting a video instead of going to a movie, cutting back on fast food snacks, and using a carpool and sharing the cost of gasoline.

6. Suggest that students use some of these tips for reducing spending for a week, then report whether or not they have extra money at the end of the week. If so, have students discuss how much of their extra cash they could save for wants, such as a car.

Spending and Saving

Weekly Income and Expense Record

Week of _____ **Name** _____

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	**TOTALS**
Savings								
Food, Snacks								
Clothes, Movies, Concerts, Sports, Hobbies								
Tapes, CDs								
Hair, Cosmetics								
Trans-portation: Bus fares, repairs, parking, gas								
Miscel-laneous								
TOTALS								

If expenses exceed income, you can either increase income or decrease expenses.

Total Income $ _____

Total Expenses $ _____

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Types of Banks & Accounts

Selecting the best place to save your money is a lot like buying a car. When you decide to buy a car, you canvass the car dealers in your area and gather information about the cost and features you want on your car. The process is the same for selecting a place to save. Yet, many people fail to comparison-shop for the best deal among financial institutions in their area.

NOT EVERYONE FEELS COMFORTABLE when it comes to dealing with a financial institution. Banks can be imposing. To become better acquainted with financial institutions and their services, this section presents the basic types of institutions and the various accounts and services they provide.

Types of Institutions

There are basically four different types of savings institutions: commercial banks, credit unions, savings and loan associations, and savings banks.

A ***commercial bank*** is an institution that has been authorized, by either the state or federal government, to offer a full range of financial services. It is owned by stockholders and is operated for profit. It provides savings and checking accounts to its depositors. In addition, it is a source of credit to its customers.

A ***credit union*** is a financial cooperative organization of individuals with a common affiliation. It accepts deposits of members, pays interest or dividends on these deposits out of its earnings, offers checking-like accounts called share drafts, and provides consumer installment credit to its members.

Types of Banks & Accounts

A ***savings and loan association*** accepts deposits primarily from individuals and channels these funds mostly into residential mortgage loans. Historically most savings and loans were owned by the depositors. Now the larger institutions are typically stockholder owned.

A ***savings bank*** may be either a mutual savings bank chartered by the state government and technically owned by the depositors, or a federal savings bank chartered by the federal government and owned by stockholders. Most mutual savings banks now have deposit taking and lending powers equivalent to those of commercial banks although they traditionally provide mostly consumer banking services, especially home mortgages. Federal savings banks have powers more equivalent to those of savings and loan associations with an emphasis on home mortgage and commercial real estate lending.

Types of Accounts

These institutions offer various accounts that, in general, fall within one of these four categories: savings accounts, checking accounts, money market deposit accounts (MMDAs), and certificates of deposit (CDs).

With a ***savings account***, you can make deposits and withdrawals. The number of withdrawals or transfers you can make each month may be limited. Some institutions have several types of savings accounts, for example, passbook or statement savings. With a passbook savings account, you receive a book in which your deposits and withdrawals are entered as a record of transactions on your account. You must present this record book when you make deposits and withdrawals. With a statement savings account, a monthly statement listing the transactions that occurred during that period may be mailed to you. Some institutions assess fees on their savings accounts, such as a minimum balance fee and a transaction fee for withdrawals.

Checking accounts are a more flexible and convenient means of gaining access to the money you have on deposit. Typi-

cally, you can make deposits into the account as often as you choose, and you use checks to make withdrawals. Many institutions will enable you to deposit or withdraw funds at an automated teller machine (ATM) or to pay for purchases at stores with your ATM card.

Some checking accounts pay interest; others do not. A regular checking account--frequently called a demand deposit--does not pay interest whereas a ***negotiable order of withdrawal (NOW)*** account does.

Besides charging for the checks you order, institutions may impose various fees on checking accounts. Fees vary among institutions. Some institutions charge a maintenance or flat monthly fee regardless of the balance in your account. Other institutions charge a monthly fee if the minimum balance in your account drops below a certain amount any day during the month or if the average balance for the month drops below the specified amount. Some charge a fee for every transaction, such as for each check you write or for each withdrawal you make at an ATM.

Although a checking account that pays interest may appear more attractive than one that does not, it is important to look at the fees for both types of accounts. Often checking accounts that pay interest charge higher fees than do regular checking accounts, so you could end up paying more in fees than you earn in interest.

Factors and Fees

Factors to consider when selecting a checking or savings account include the way the deposit earns interest, the method of calculating the interest, and any minimum balances or transaction fees that are required.

An initial deposit earns interest. The interest is added to the deposit. The combined balance then earns additional interest. This additional interest may be compounded, or added to your account, daily, monthly, quarterly, semi-annually, or annually

depending on the type of initial investment features. The more often money is compounded, the more money is earned.

How much interest will the deposit earn? For example, interest can be determined on the low daily balance during the month or on the average daily balance.

Many institutions charge service fees. To avoid a service fee, you must know if the institution requires a minimum balance. Service fees, which are subtracted from the money in your account, should be avoided when possible. Examples of some service fees are charges for ATM transactions, insufficient funds or returned checks, wire transfers, stop payment of checks, and requests for copies of checks.

Most institutions offer an interest-bearing account, called a ***money market deposit account(MMDA)***, that allows the depositor to write checks. MMDAs often require a higher minimum balance to start earning interest than do other accounts, but they frequently pay higher rates than do NOW or savings accounts. Withdrawing funds from an MMDA may not be as convenient as doing so from a checking account. Each month, the depositor is limited to six transfers to another account or to other people, and only three of these transfers may be by check. As with checking accounts, a fee per check may be imposed.

Certificates of deposit (CDs) are often referred to as time deposits. They usually offer a guaranteed rate of interest for a specified term. Institutions offer CDs that allow you to choose the length of time, or term, that your money is on deposit. Terms can range from one month to several years. Once you have chosen the term you want, the institution will generally require that you keep your money in the account until the term ends, that is, until maturity. Some institutions will allow you to withdraw the interest you earn even though you cannot take out any of your initial deposit amount (principal). Because you agree to leave your funds for a specified period, the institution may pay you a higher rate of interest than it would for a regular savings

account. Typically, the longer the term, the higher the annual percentage yield (APY) or interest earned.

Small CDs may be purchased for $500, but most are for $1,000, $5,000, or $10,000. An institution may allow you to withdraw your principal funds before maturity but frequently charges you a penalty for doing so. Penalties vary among institutions, and they can be hefty. The penalty could be greater than the amount of interest earned, so you could lose some of your principal deposit.

Institutions will notify you before the maturity date for most CDs. Often CDs renew automatically. So, if you do not notify the institution at maturity that you wish to take out your money, the CD will roll over, or continue, for another term.

Deposit Insurance

Federal deposit insurance sets apart deposit accounts from other savings choices. Only deposit accounts at federally insured depository institutions are protected by federal deposit insurance. Generally, the government protects the money you have on deposit up to a limit of $100,000. Accounts for special relationships, such as trusts or co-owners, may also affect the amount of insurance coverage you have. Asking how the deposit insurance rules will apply to your deposit account is ***always*** a good idea.

Federally insured depository institutions also offer products that are ***not*** protected by insurance. For example, you may purchase shares in a mutual fund. This investment would ***not*** be protected by the federal government.

What type of account should you open? The answer depends on how you plan to use the account. If you want to build up your savings and you think that you will not need your money soon, a certificate of deposit may be right for you.

If you need easy access to your money, however, a savings or checking account may be a better choice. If you plan to write several checks each month (for example, to pay bills), you will probably find that a checking account is best for you. But if you

Types of Banks & Accounts

usually write only two or three checks each month, then a MMDA may be a better deal. MMDAs usually pay a higher rate of interest than do checking accounts, but minimum balance requirements are often higher as well.

Account features and fees vary from one institution to the next. If you have questions, you should ask a representative of the institution about any account features and fees ***before*** you open an account. One important question: can teenagers open their own account?

Activities

1. Ask the students to identify the various types of financial institutions in their neighborhood.
2. Find out the types of accounts and features that these institutions offer, such as checking and savings accounts, interest rates, minimum deposit requirements and so forth. Ask the students to chart the differences among institutions and among the savings options, using the Worksheet on page 16.

   A features comparison list is included on pages 14 and 15 to help the students see what the differences among account features are and how these features can affect their ability to save and to gain access to their funds.
3. Have the students look through the business section of the newspaper and review the advertisements for the various institutions. Ask the students to cut out the advertisements and to make a collage or a presentation about their findings. Then ask the students to select the institution with the best options for depositors with differing needs.
4. After the assignment has been completed, make an appointment for a class tour of the institution or ask a representative to make a presentation to the class about the institution and the accounts it offers.

Types of Banks & Accounts

Student's Comparison-Shopping List

In shopping for an account, it is important to look closely and compare features. Here are some of the most common features to compare:

Interest Rate

- What is the interest rate?
- Can the institution change the rate after you open the account?
- Does the institution pay different levels of interest depending on the amount of your account balance and, if so, in what way is interest calculated?

Interest Compounding

- How often is interest compounded? In other words, when does the institution start paying interest on the interest you have already earned in the account?

  [The annual percentage yield (APY) is a rate that reflects the amount of interest you will earn in a year on a deposit.]

- What is the minimum balance required **before** you begin earning interest?

When Do You Start Earning Interest

- Do you begin earning interest on the day you deposit a check or cash into the account--called earning on your ledger balance; or,
- Do you begin earning interest later, when the institution receives credit for the check—known as earning on your collected balance?

Fees

- Will you pay a flat monthly fee?
- Will you pay a fee if the balance in your account drops below a specified amount?
- Is there a charge for each deposit and withdrawal you make?
- If you can use ATMs to make deposits and withdrawals on your account, is there a charge for this service? Does it matter whether or not the transaction takes place at an ATM owned by the institution?

Types of Banks & Accounts

Fees—continued

- If you have a checking account or an MMDA, how much will ordered checks cost? Will you be charged for each check you write?
- Are fees reduced if you have other accounts at the institution?
- What is the fee if you request the institution to stop payment on a check you have written?
- Is there a charge for asking how much money you have in your account (a balance inquiry)?
- Does the institution charge a fee for closing an account early? If it does, when will the fee be imposed?
- What is the charge for writing a check that "bounces" (a check returned for insufficient funds)? And what happens if you deposit a check written by another person, and it bounces? Are you charged a fee?

Other Features

- Does the institution limit the number or the dollar amount of withdrawals or deposits you make?
- If you close the account before interest is credited to your account, will the institution pay you the interest that has been earned until that time?
- How soon after you have deposited funds does the institution allow you to withdraw them from your account?

Time Accounts

- What is the term of the account, that is, how long is it until the maturity date?
- Will the account roll over automatically? In other words, does the account renew unless you withdraw your money at maturity or during any grace period provided after maturity?

  [A ***grace period*** is the time after maturity when you can withdraw your money without penalty.]
- If there is a grace period, how long is it?
- If you are allowed to withdraw your money before maturity, will the institution impose a penalty? If so, how much?
- Will the institution regularly send you the amount of interest you are earning on your account--or regularly credit it to another account of yours, like a savings account?

Other Savings Options

People save and invest for many reasons. They do so to reach financial goals such as a new car, a college education, a trip, or a down payment on a house. They do so to avoid paying interest for borrowed money. Another reason people save and invest is to earn more money. After a sum of money is saved, it can be invested in long-term securities that produce higher yields. For example, some mutual funds and government securities require a minimum investment of $1,000 or more.

THE RATE OF RETURN and risk for savings are often lower than for other forms of investment. Return is the income from an investment. Risk is the uncertainty that one will get the return expected. Savings are usually more liquid, that is, they can be more quickly and easily converted into cash, than can other investments.

Other Investment Options

There are investments other than savings and checking accounts, MMDAs, and CDs. They have completely different features, minimum investment requirements, yields, flexibility, risk, maturity, and accessibility. Let's explore some of them.

U.S. Savings Bonds are available at most banks and through payroll deduction. Series EE bonds are purchased for 50 percent of their face value, which is the amount the bond is worth when it matures.

The minimum purchase is $25 for a $50 bond that matures from eight to twelve years in the future. The rate is keyed to a variable interest rate based on market interest rates. Bonds

Types of Banks & Accounts

Comparing Savings Places

Name and Type of Institution _____

	Checking Account	Savings Account	Money Market Deposit Account	Certificate of Deposit
Annual Interest Rate				
Safety/Insured (Federal Deposit Insurance)				
Minimum Initial Deposit				
Date of Maturity				
Penalty for Early Withdrawal				
Service Charges, Fees				

Comments on other factors such as convenience, friendly and courteous service, hours of service, local community involvement, and so forth.

_____

_____

_____

_____

_____

_____

cashed before five years are penalized with an interest rate that is lower than the market rate.

Common types of higher-risk investments include stock, municipal bonds, and mutual funds. The decision about which investment to choose is influenced by factors such as yield, risk, and liquidity.

Investments produce current income through the payment of interest and dividends. Growth or appreciation in the value of an investment is known as capital gains.

When you own shares of **stock** you become part owner of a company. If the company does well, the value of your stock should increase over time. If the company does not do well, the value of your investment will decrease. Companies distribute a portion of their profits to shareholders as dividends.

Selecting individual stocks requires time, effort, and knowledge. The objective of buying stocks is to choose those that will increase in value over time. The friendly advice "buy low and sell high" is easier said than done.

When you own a **bond**, you have loaned money to a company or a unit of government. In return, the borrower promises to repay the amount borrowed plus interest. Corporate bonds are issued by publicly owned companies, whereas municipal bonds are issued by state or local governments. The price of a bond will fluctuate as interest rates go up or down. If you hold the bond to maturity you will receive an amount stated on the bond known as the face value.

When you invest in a **mutual fund** your money is pooled with that of other shareholders. The funds manager invests that pooled money by buying and selling securities in various types of investments for the fund's shareholders. Mutual funds are not risk free. Their values rise and fall with the securities in the fund. For the beginning investor, some of the benefits of mutual funds include liquidity, lower risk than that of stocks, greater return than that of savings accounts, and diversification of

Other Savings Options

investment. Whether you choose a simple method of saving (savings bond) or a more sophisticated method (mutual funds), you need to consider these factors.

Factors to Consider

Liquidity is the speed and ease with which an asset can be converted into cash. Before you choose how to save or invest, consider how quickly you will need your money. Savings held in bank accounts and money market funds are appropriate for short-term needs because they are liquid. Investments such as stocks and bonds are suitable for longer-term goals because they are less liquid.

Savings vehicles such as CDs cannot be converted into cash before the maturity date without penalty. Although stocks and bonds can be sold at any time, an investor can lose a portion or even all of the original money invested if he or she is forced to sell when the market is down.

As a general rule, the greater the promised return, the greater the risk. **Risk tolerance** is a person's ability to ride out the ups and downs of the market without panicking when the value of investments goes down. Risk tolerance varies from person to person and at different stages in the life cycle. Young adults with growing income potential may take greater investment risks than people who are approaching retirement.

How much should a person expect to earn on an investment? If you are promised a return on an investment that is greater than 3 percent over the inflation rate, be alert to high risk or possible fraud. The return may be too good to be true. A scam artist may promise an unrealistically high return just to get your money.

The basic idea of investing is to commit money today with the expectation of a financial **return** in the future. The return can come from earnings and from growth.

Earnings on your investment can be in the form of **interest or dividend payments**. You will recall that interest is the

payment received in exchange for the loan of money. A dividend is payment to stockholders from the earnings of a corporation. The Rule of 72, a tool for estimating how long it will take to double your money at a given rate of return, is explained on page 24.

Growth comes from price appreciation on an investment that is sold for more than you paid for it. **Appreciation**, or **capital gain**, is income realized when you sell property or securities for more than the purchase price. Of course you may have to sell for less than you paid and have a capital loss.

Inflation, or a general rise in the price of goods and services, is an important factor for investors to consider because it reduces the value of money. The value of money is measured in the amount of goods and services it will purchase. Investors want to have the return on investments keep up with inflation so that their money will not lose its purchasing power. However, the desire to have investment returns keep up with inflation should be balanced against the possible loss of principal in potentially high yield, but risky investments. A suggested guideline is to seek investment returns of the inflation rate plus 3 percent. Promised returns above this amount usually carry high risk.

Diversification is the process of reducing risk by spreading money among various types of investments. Because certain investments perform better than others in certain economic conditions, an investor may spread the risk by following the advice "Don't put all your eggs in one basket." An investor's "basket" of securities and investments, known as a portfolio, can consist of investments with varied risk-return characteristics.

When interest rates are up, for example, stock prices tend to go down. When interest rates are down, stock prices tend to rise. One industry can be down while other industries are doing well. The auto business can be down, for example, while the housing industry prospers.

Other Savings Options

Putting money in a variety of investments lessens the risk of loss due to any one investment's poor performance. Investors who review and adjust their investment portfolio regularly are likely to earn more over time than those who do not.

Other Savings Options

Activities

Fill-in the Blanks

1. List three savings options with low risk.

   a)

   b)

   c)

2. Explain the purpose of diversification in investments.

3. Name three benefits of mutual funds for a beginning investor.

   a)

   b)

   c)

Definitions

Define the following investment terms:

1. Interest

2. Dividends

3. Appreciation

Answers

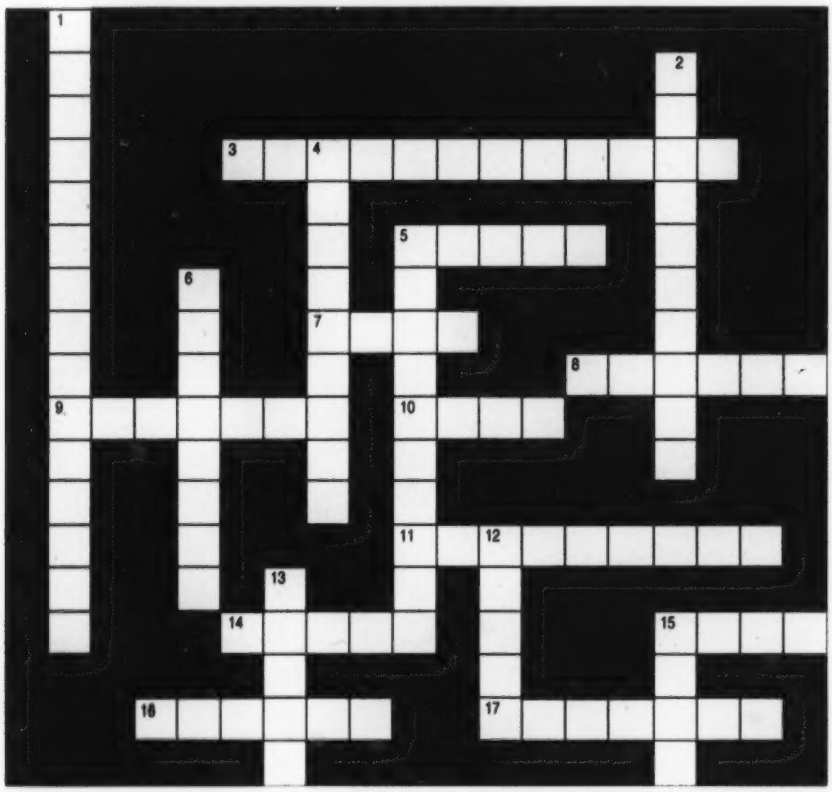
1. a. Certificates of Deposit; b. Interest bearing checking and savings accounts; c. U.S. savings bonds.
2. The purpose of diversification is to spread the risk of investing over different investment options.
3. a. Diversification; b. Small amounts of money can be invested; c. Easy to buy and sell.

Definitions

1. Payment received for lending money.
2. Payment received by stockholders from a corporation's earnings.
3. An increase in the basic value of an investment.

Other Savings Options

Cross Word Puzzle



ACROSS

3. An increase in the basic value of an investment
5. Ownership interest in a company
7. The stated amount you will receive from a bond if kept until maturity (first of two words)
8. A fund where individuals "pool" investment money (first of two words)
9. Growth or appreciation in the value of an investment when the asset is sold for more than its purchase price (first of two words)
10. Uncertainty that you will get the return expected
11. A general rise in the price of goods and services
14. See 9 across (second of two words)
15. See 17 across (second of two words)
16. Amount gained or lost from an investment
17. Minimum savings option ($25) purchased at banks (first of two words)

DOWN

1. Spreading investment money among different savings options or investment
2. Legal document describing an investment offered for sale
4. An investor's basket of securities and investments
5. Investment instruments such as stocks and bonds
6. Payment received by stockholders from a corporation's earnings
12. See 8 across (second of two words)
13. See 7 across (second of two words)
15. Certificate representing a loan of smoney to a company or a government unit

ANSWERS:
Across: 3. appreciation; 5. stock; 7. face; 8. mutual; 9. capital; 10. risk; 11. inflation; 14. gains; 15. bond; 16. return; 17. savings
Down: 1. diversification; 2. prospectus; 4. portfolio; 5. securities; 6. dividend; 12. funds; 13. value; 15. bond

Other Savings Options

Activities—continued

Rule of 72

The Rule of 72 is a useful tool for investors.

With the Rule of 72, you can calculate how long it will take your money to double at a given rate of return if you reinvest the earnings.

---

72 Divided by the Percentage Rate of Return

Equals

the Number of Years Needed to Double Your Money

For example, if you had $1,000 to invest;

at 8 percent interest rate, it would take 9 years for the money to reach $2,000 **(72 ÷ 8 = 9)**,

at 10 percent, it would take 7.2 years for the $1,000 to double **(72 ÷ 10 = 7.2)**.

How long will it take the following investments to double?

Investment	Rate of Return (percent)	Years to Double
1. CD	6.5%	_____
2. Common Stock	10.0%	_____
3. Money Market	6.0%	_____

Answers: **1.** 11+ years; **2.** 7.2 years; **3.** 12 years

Time Value of Money

The longer funds are set aside and earn interest, the more they grow. This increase in an amount of money over time as a result of earnings on savings and investments is known as the time value of money.

FACTORS THAT AFFECT the future amount of money include

- the amount of money saved
- the rate of return or earnings, as influenced by
  - the annual percentage rate of interest
  - the frequency of compounding interest
  - the appreciation and dividends in stocks
- the length of time money is saved.

If you deposit money today, it has more value than it will if you invest it tomorrow, a month from now, or in a year. The reason: money saved today will increase to a larger sum through investments and interest. To demonstrate this concept, here are some examples and activities.

Future Value of a Single Deposit

Using the *Future Value of a $1,000 Single Deposit* table (page 27), you can determine the future value of money invested.

1. Lynn's parents placed $1,000 in a bank savings account in Lynn's name ten years ago. The account has earned 5 percent, compounded annually. No funds have ever been withdrawn from the account. How much is the account worth today? _____
2. How much would Lynn have today if her parents had purchased certificates of deposit (CDs) averaging 8 percent return over the past ten years? _____

Time Value of Money

Future Value of Monthly Deposits

Using the *Future Value of $25 Deposited Monthly* table (page 27), you can determine how much a fixed amount of savings per month will grow within a given time.

3. If Rob saves $25 each month at 5 percent interest and leaves the interest in his account, how much will he have saved at the end of two years? _____. How much will he have saved if he saves $25 a month in a mutual fund yielding 8 percent for two years? _____
4. Were you surprised at the small difference in the amount earned between 5 percent and 8 percent? The rate of interest becomes more important for long-term investments because the interest earned in turn accrues interest (the time value of money).
5. Sue can save $25 each month. How long will it take her to accumulate $1000 if her money earns 8 percent interest, the earnings are left in the account, and the interest is compounded monthly? _____

Using the *Future Value of $100 Deposited Monthly* table (page 27), determine the growth of an employee tax-deferred savings plan over 10 years.

6. Stan's employer has a savings and investment plan that allows money to grow tax-deferred. Stan's employer will contribute 50 cents for every dollar Stan saves in the plan. Combined with the employer's contribution, Stan will save $100 a month. How much would $100 saved per month be in 10 years at six percent? At eight percent?

Monthly Savings and Investments for Future Goals

Using the *Monthly Savings for Future Goals* (page 28), determine how much money would have to be saved each month to reach the following goals:

7. Rob wants to have $3,000 in three years for a down payment on a car. How much must he save per month at 5 percent interest? _____ At 8 percent? _____
8. Cindy wants to have $1,000 in one year in order to take a trip with her friends. How much must she save each month at 5 percent? _____ At 8 percent? _____

Answers: **1.** $1,629.00; **2.** $2,159.00; **3.** $632.00; **4.** $653.00; **5.** 3 years; **6.** $16,470.00/$18,417.00 **7.** $77.09/$73.52; **8.** $81.10/$79.80.

Time Value of Money

Future Value Of A $1,000 Single Deposit

Year	Interest Rate 5%	8%
1	$1,050	$1,180
2	1,102	1,116
5	1,276	1,469
10	1,629	2,159
20	2,653	4,661

Future Value Of $25 Deposited Monthly

Savings deposit made at the beginning of each month with interest compounded monthly.

Year	Interest Rate 5%	8%
1	$308	$313
2	632	653
3	973	1,020
5	1,707	1,849
10	3,898	4,604
20	10,319	14,824

Future Value Of $100 Deposited Monthly

Savings deposit made at the beginning of each month with interest compounded monthly.

Year	Interest Rate 5%	8%
1	$1,233	$1,253
2	2,529	2,611
3	3,891	4,081
5	6,829	7,397
10	15,593	18,417
20	41,275	59,295

Time Value of Money

Monthly Savings for Future Goals

Savings deposit made at beginning of each month with interest compounded monthly.

5% Interest Rate

Goal	1 Year	3 Years	5 Years
1,000	$81.10	$25.70	$14.64
2,000	162.20	51.39	29.29
3,000	243.31	77.09	43.93
5,000	405.51	128.49	73.72

8% Interest Rate

Goal	1 Year	3 Years	5 Years
1,000	$79.80	$24.51	$13.52
2,000	159.58	49.01	27.04
3,000	239.37	73.52	40.56
5,000	398.95	122.53	67.60

Buying a Car

Eyes light up when you mention the prospect of a car, whether it is new or used. For some people having a car may be unaffordable even though it is a necessity. To get to work or to school, they may have to use a bus, a carpool, the metro (subway) or a combination of several kinds of transportation.

PURCHASING A CAR may not be a problem for others. They may have the income for doing so, or they may have saved and invested well. Most people borrow money to buy a car. Some people pay cash. **Cash for a Car!** This is not as unlikely an option as it might seem, especially if you **save** and **shop**. Regardless of your situation, you should consider several factors before you purchase a car.

To start, consider whether you need a car. Other modes of transportation for getting to work or to school may be more practical. So, one of the first considerations in making a decision about buying a car is whether the advantages of having one outweigh the disadvantages. To look at all of the factors involved, making a chart of the items may be helpful. For example:

Buying a Car

Comparing Alternative Methods of Transportation

Method	Advantage	Disadvantage
Bus/Metro		
Walking		
Carpool		
Motorcycle		
Car		

Among the factors to be considered might be cost, flexibility, safety, convenience, reliability, and speed.

Buying a Car

Comparison-shopping

If after considering various modes of transportation you decide that buying a car is your best choice, consider whether to buy a new or used car. To find out what is available at a price you can afford, develop a shopping list and go comparison-shopping. There are items on the next page that you might include on your list.

"Better shop around" is not only a lyric from a song, but a good idea to apply to the purchase of a new or a used car. Car prices can vary widely from seller to seller, even for the same model and year. You can save money by doing your homework. The list on the next page identifies additional cost considerations of owning a car.

Buying a Car

Activities

Shopping List for a Car

Before you start shopping, consider:

- size
- make
- year
- model
- space
- warranty
- options
- price
- maintenance costs
- condition (if a used car)
- mileage (if a used car)
- miles per gallon
- safety
- economy

Costs When Buying a Car

When saving to buy a car, consider:

- Purchase price
- Registration and title costs
- Sales tax (federal and state)
- Insurance
- State license plates
- Interest on the loan

Costs of Operating a Car

When shopping for a car, consider these costs:

- Repairs and maintenance
- Gasoline
- Oil and other fluids
- Annual state stickers and tags

Glossary

Annual Percentage Yield (APY) — the amount of interest that will be earned on a deposit in the course of a year.

Appreciation — an increase in the basic value of an investment.

Automated Teller Machine (ATM) — computer-controlled terminal located on the premises of financial institutions or elsewhere, through which customers may make deposits, withdrawals, or other transactions as they would through a bank teller.

Bank Statement — a record that shows the deposits and withdrawals made to an account that the financial institution sends by mail to the customer on a regular basis.

Bond — certificate representing a loan of money to a corporation or a government unit for a specific period, in exchange for a promise to repay the bondholder the borrowed amount plus interest.

Capital Gain — the amount of gain when an asset is sold for more than the purchase price.

Certificate of Deposit (CD) — a form of time deposit.

Checking Account — a convenient and flexible means of accessing the money you have on deposit by a written order drawn on the account.

Commercial Bank — an institution that uses its customers' funds or deposits chiefly to purchase additional financial assets such as other deposits, loans or securities. These institutions engage in varied lending activities and offer numerous services to customers. They are owned by stockholders and operated for profit.

Compound Interest — interest earned on interest, which is then added to the principal.

Glossary

Credit Unions — financial cooperative organizations of individuals with a common affiliation such as employment, labor union membership, or place of residence. Credit unions accept deposits of members, pay interest (dividends) on them out of earnings, and primarily provide consumer installment credit to members.

Deposit Insurance — a government program that insures deposits up to $100,000.

Diversification — spreading investment funds among different types of investments and industries.

Dividend — payment received by stockholders from the earnings of a corporation.

Grace Period — the time after maturity when you can withdraw your money without penalty.

Inflation — a general rise in the price of goods and services, resulting in a loss of the purchasing power of money.

Interest — for the investor, the payment received from a financial institution for lending money to it.

Liquidity — the ease with which an investment can be converted into cash.

Maturity Date — the date at which an investment instrument reaches its full value.

Money Market Deposit Account (MMDA) — an interest-bearing account that allows you to write checks that may pay a higher rate of interest than a checking or savings account.

Glossary

Mutual Fund — a company that invests the pooled money of its shareholders in various types of investments.

Negotiable Order of Withdrawal (NOW) — an interest-bearing checking account.

Passbook Account — a savings account in which a fixed rate of interest is paid and money can be withdrawn at any time and for which the customer receives a book in which transactions are recorded.

Portfolio — the total investments held by an individual or an institution.

Principal — the initial amount of money saved to which interest is added.

Profit — the additional funds earned when income exceeds expenses.

Prospectus — legal document describing an investment offered for sale.

Return — the total income from an investment (includes income plus capital gains or minus capital losses).

Risk — in an investment, the uncertainty that the investor will get an expected return. In insurance, the uncertainty of whether a loss will occur.

Rule of 72 — a mathematical tool used to estimate the length of time needed to double an investment at a given rate of return.

Savings — money set aside to meet future needs.

Glossary

Savings Bond — a security issued by the federal government to finance its deficits that is sold only to individuals and nonprofit organizations on a discount basis.

Securities — a broad range of investment instruments, including stocks, bonds, and mutual funds.

Stock — an investment that represents ownership in a company; also known as a share.

Time Value of Money — increase in an amount of money over time as a result of investment earnings.

Yield — interest or dividend generated by the investment, generally calculated as a percentage of the amount invested.

Resource List

Sources for materials are coded and appear in **boldface** type. See Source List for the addresses.

Publications

Arithmetic of Interest Rates
Explains simple and compound interest and their effect on the yield of government securities and the cost of consumer credit. (**FRB-NY**, 1984) First 50 copies free. 34-page booklet.

Banking Basics
An overview of banking and banking services designed for young people. Explains how to select a bank and bank accounts. Discusses electronic banking, depositor protections, and how the Federal Reserve fits into the U.S. banking system. (**FRB-B**, 1992)

Money Magazine for Kids
An annual, nonprofit stay-in-school guide aims to help economically disadvantaged 8 to 14-year-olds overcome obstacles in their lives and strive for a college education and a career. (**Time**, Annual) Free to children through school districts. Additional copies $1.50 each.

Points of Interest
Explanation of what determines interest rates. Includes a discussion of why different rates exist for different loans. (**FRB-C**, 1993) 18-page booklet. Free.

Savings Bonds Question and Answer Book
Detailed information on savings bond purchase, interest, maturity, replacement, redemption, exchange and taxes. (**CIC**, 1991) 12-pages. 50 cents.

Teaching Guides

Choices & Decisions: Taking Charge of Your Life
Teaching guide and interactive video teaches a broad range of personal finance and management topics, including budgets, banking, credit and cars. (**VISA**, 1991) Loaned or donated by local banks.

Consumer Approach to Investing
Six units introduce financial planning basics, how markets work, saving and investing choices, sources of information, fraud and ethics. For high school and adult educators. (**NICE**, 1992) $15.

High School Financial Planning Program
Six units introduce the financial planning process, income and goals, credit, assets, saving and creating a financial plan. (**CFP**, 1992) Free teaching guide and workbooks.

Master Your Future
Teaching guide and video for senior high school educators. Topics include budgeting, savings and checking, and personal finance. (**MC**, 1993) Free to educators.

Resource List

You're Accountable — Teaching guide and video provide an overview of saving, spending and borrowing in an economic context. Worksheets for comparing savings/checking accounts, saving for goals, etc. (**NY-CES**, 1987) $60. Also available in Spanish.

Videos or Filmstrips

Checking Accounts: Guide to Selection and Use — A young couple sets up their first checking account. How to shop for an account, write checks, use check registers, and endorse a check. Tips on avoiding bounced checks and fraud. (**LS**, 1993) $89 plus shipping.

Guide to Savings and Checking Accounts — Filmstrips and cassettes. (**LS**, 1986) $69.

Master Your Future — See annotation in Teaching Guides section.

Computer Software

Crystal Ball — Software and teaching suggestions. (**LS**, 1986) $49.

Savings Mini Course — Software and activity unit. (**C.W.**, 1987) $65.

Additional Resource Lists

Credit Education Resource Lists — Comprehensive, up-to-date lists of brochures, videos and other credit education materials available to consumer educators. Materials are organized by credit topics and target group. (**NICE**, 1993) Free.

Money Management Resources Lists — Selected resource lists including textbooks, teaching guides, videos and publications on topics such as saving and investing, insurance, personal finance and special needs. (**NICE**, 1993) $1.

Sources

CFP
College for Financial Planning
High School Financial Planning Program
4695 South Monaco Street
Denver, CO 80237-3403
303-220-1200

CIC
Consumer Information Center
Pueblo, CO 81002

CW
C. W. Publications
Box 744
Sterling, IL 61801
800-554-5537

FRB-B
Federal Reserve Bank of Boston
Publications
P. O. Box 2076
Boston, MA 02106-2076
617-973-3459

FRB-C
Federal Reserve Bank of Chicago
230 South LaSalle Street
Chicago, IL 60690-0834
312-322-5111

FRB-NY
Federal Reserve Bank of New York
Public Information Department
33 Liberty Street
New York, NY 10045
212-720-6134

LS
The Learning Seed
330 Tesler Road
Lake Zurich, IL 60047
800-634-4941

MC
MasterCard
International
800-624-9688

NICE
National Institute for
Consumer Education
207 Rackham Building
Eastern Michigan
University
Ypsilanti, MI 48197
313-487-2292

NY-CES
Cooperative Extension
Service Resource Center
#7 Business and
Tech Park
Cornell University
Ithaca, NY 14853
607-255-2080

TIME
Time, Inc. Money
for Kids
P. O. Box 30626
Tampa FL 33630-0626

VISA
Visa U.S.A. Inc.
P. O. Box 8999
San Francisco, CA
800-235-3580
(to locate local bank)

This resource list was compiled by the National Institute for Consumer Education (NICE). For additional information on resources, write to NICE, 207 Rackham Building, Eastern Michigan University, Ypsilanti, MI 48197, or call 313-487-2292.